10/14/2003 15:05 7033855080 KEATING & BENNETT PAGE 08/12

Serial No. 09/761,317 October 14, 2003 Reply to the Office Action dated July 16, 2003 Page 7 of 11

REMARKS/ARGUMENTS

Claims 1-20, 25, and 26 are pending in this application. By this Amendment, Applicants AMEND claims 1 and 7.

Claims 1-20 and 26 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hirano et al. (U.S. 5,550,068) in view of the Applicants' Admitted Prior Art Figs. 1a-1d and 2 (AAPA), and further in view of Hayashi (U.S. 5,336,929). Claims 1 and 25 were rejected under 35 U.S.C. 103(a) as being unpatentable over Takashi (JP 06-260482) in view of the AAPA. Applicants respectfully traverse the rejections of claims 1-20, 25, and 26.

Claim 1 has been amended to recite:

"A method of wiring formation comprising the steps of:
forming a feeder film partially on a substrate;
forming on the substrate a plating base film such that the
plating base film partially overlaps the feeder film;
forming a plated wiring on the plating base film; and
selectively removing at least a portion of the feeder film that is
exposed from the plated wiring." (emphasis added)

Applicants' claim 1 recites the steps of "forming on the substrate a plating base film such that the plating base film partially overlaps the feeder film" and "selectively removing at least a portion of the feeder film that is exposed from the plated wiring." Applicants' claims 7, 13, and 17 recites features which are similar to features recited in Applicants' claim 1, including the above emphasized features. With the improved features of claims 1, 7, 13, and 17, Applicants have been able to provide a method of wiring formation wherein fine wiring is accurately formed by the semi-additive process using wet etching to remove the feeder film (see, for example, the second paragraph on page 3 of the originally filed Specification).

The Examiner has indicated in paragraph no. 2 on page 2 of the outstanding Office Action that the combination of Hirano et al., AAPA, and Hayashi were relied upon to reject the claims 1-20 and 26. However, the Examiner has failed to mention Hayashi

Serial No. 09/761,317 October 14, 2003 Reply to the Office Action dated July 16, 2003 Page 8 of 11

in the body of the rejection.

Further, the Examiner has alleged that the circuit means 2 of Hirano et al. teaches the feeder film recited in Applicants' claims 1, 7, 13, and 17. However, Hirano et al. clearly fails to teach or suggest that <u>any</u> portion of the circuit means 2 is removed and certainly fails to teach or suggest the step of "selectively removing at least a portion of the feeder film that is exposed from the plated wiring" as recited in Applicants' claims 1, 7, 13, and 17.

The Examiner has alleged that lines 28-31 of column 2 of Hirano et al. teach this feature. However, lines 28-31 of column 2 of Hirano et al. disclose that "the conductive layer 4 is removed, by using techniques applicable to removing of metallic layer such as ion milling for example, from the surface of the circuit means 2 and the insulation layer 3." Thus, lines 28-31 of column 2 of Hirano et al. are directed to removal of the conductive layer 4, NOT to removal of the circuit means 2 which the Examiner has alleged corresponds to the feeder film. The conductive layer 4 is not even used in the embodiment relied upon by the Examiner in the remaining portion of the rejection.

Furthermore, as clearly seen in Fig. 1(k) of Hirano et al., the conductive film 4 is the uppermost layer, and <u>NO</u> other layers are formed so as to partially overlap the conductive film 4. Thus, the conductive film 4 of Hirano et al. cannot be fairly construed as the feeder film recited in the present claimed invention because the present claimed invention recites the steps "forming a feeder film partially on a substrate" and "forming on the substrate a plating base film such that the plating base film partially overlaps the feeder film" (emphasis added).

Thus, Hirano et al. clearly fails to teach or suggest the steps of "forming a feeder film partially on a substrate," "forming on the substrate a plating base film such that the plating base film partially overlaps the feeder film" and "selectively removing at least a portion of the feeder film that is exposed from the plated wiring" as recited in Applicants' claims 1, 7, 13, and 17.

The Examiner has alleged in the third paragraph on page 3 of th outstanding

Serial No. 09/761,317 October 14, 2003 Reply to the Office Action dated July 16, 2003 Page 9 of 11

Office Action that "it would have been obvious for one of ordinary skill in the art at the time [the] invention was made to use the step to remove the feeder film by any method including wet etch as suggest by applicants prior art." However, the Examiner has clearly failed to provide any motivation for why one of ordinary skill in the art would want to remove any portion of the circuit means 2 of Hirano et al. Further, one of ordinary skill in the art would not have been motivated to remove any portion of the circuit means 2 of Hirano et al. for any reason. Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination. In re Geiger, 815 F.2d 686, 2 USPQ 1276, 1278 (Fed. Cir. 1987).

The Examiner has relied upon AAPA and Hayashi to allegedly cure various deficiencies in Hirano et al. However, neither AAPA nor Hayashi teach or suggest the step of "selectively removing at least a portion of the feeder film that is exposed from the plated wiring" as recited in Applicants' claims 1, 7, 13, and 17.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 1, 7, 13, and 17 Hirano et al. in view of AAPA, and further in view of Hayashi.

The Examiner has alleged in paragraph no. 3 on page 3 of the outstanding Office Action that reference number 5 of JP 06-260482 teaches the plating base film recited in Applicants' claim 1 and reference number 4 JP 06-260482 teaches the feeder film recited in Applicants' claim 1. However, reference number 5 of JP 06-260482 does not overlap with reference number 4 of JP 06-260482. Thus, JP 06-260482 clearly fails to teach or suggest the step of "the forming on the substrate a plating base film such that the plating base film partially overlaps the feeder film" as recited in Applicants' claims 1, 7, 13 and 17.

The Examiner has relied upon AAPA to allegedly cure various deficiencies in JP 06-260482. However, AAPA fails to teach or suggest the step of "the forming on the substrate a plating base film such that the plating base film partially overlaps the feeder

10/14/2003 15:05 7033855080 KEATING & BENNETT PAGE 11/12

Serial No. 09/761,317 October 14, 2003 Reply to the Office Action dated July 16, 2003 Page 10 of 11

film" as recited in Applicants' claim 1.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 1 under 35 U.S.C. 103(a) as being unpatentable over JP 06-260482 in view of the AAPA.

Accordingly, Applicants respectfully submit that none of the prior art of record, applied alone or in combination, teaches or suggests the unique combination and arrangement of elements recited in claims 1, 7, 13, and 17 of the present application. Claims 2-6, 25, and 26 depend upon claim 1 and are therefore allowable for at least the reasons that claim 1 is allowable. Claims 8-12 depend upon claim 7 and are therefore allowable for at least the reasons that claim 7 is allowable. Claims 14-16 depend upon claim 13 and are therefore allowable for at least the reasons that claim 13 is allowable. Claims 18-20 depend upon claim 17 and are therefore allowable for at least the reasons that claim 17 is allowable.

In view of the foregoing amendments and remarks, Applicants respectfully submit that this application is in condition for allowance. Favorable consideration and prompt allowance are solicited.

Serial No. 09/761,317 October 14, 2003 Reply to the Office Action dated July 16, 2003 Page 11 of 11

The Commissioner is authorized to charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-1353.

Respectfully submitted,

Date: October 14, 2003

Attorneys for Applicants

Joseph R. Keating Registration No. 37,368

Christopher A. Bennett Registration No. 46,710

KEATING & BENNETT LLP

10400 Eaton Place, Suite 312 Fairfax, VA 22030

Telephone: (703) 385-5200 Facsimile: (703) 385-5080